

IN THE CLAIMS:

Please amend claim 5 as follows.

1. (Original) A switch using indicators for address learning comprising:
a first activator configured to control a first indicator to indicate when a source address needs to be learned and when a source address has been learned;
a second activator configured to control a second indicator to indicate when a destination address has not been learned and when a destination address has been learned;
and
a third activator configured to control a third indicator to indicate when a source address has not been learned in all switches.
2. (Original) The switch as recited in claim 1 wherein said second activator is configured to set the second indicator when there is a destination address lookup failure.
3. (Original) The switch as recited in claim 1 wherein said third activator is configured to set the third indicator if the second indicator is set before a destination address lookup, there is no destination address lookup failure and the address originated from the switch.

4. (Original) The switch as recited in claim 1 wherein said first activator configured to set the first indicator if there is a source address lookup failure or if the third indicator has been activated.

5. (Currently Amended)The switch as recited in claim 1 wherein:
said first activator is configured to set the first indicator in a header if there is a source address lookup failure or if the third indicator has been activated; and
said second activator is configured to set the second indicator in a header when there is a destination address lookup failure.

6. (Original) The switch as recited in claim 1 wherein said third activator is configured to set the third indicator in an ARL Table if the second indicator is set before a destination address lookup, there is no destination address lookup failure and the address originated from the switch.

7. (Original) The switch as recited in claim 1 further comprising an address learner configured to learn an address when said first indicator is set.

8. (Original) The switch as recited in claim 1 further comprising an address learner configured to learn an address by storing information of an address in an ARL table.

9. (Original) A switch for address learning comprising:
an first indicator means for indicating when a source address needs to be learned and when a source address has been learned;
an second indicator means for indicating when a destination address has not been learned and when a destination address has been learned; and
an third indicator means for indicting when a source address has not been learned in all switches.

10. (Original) The switch as recited in claim 9 wherein said second indicator means activates a second indicator when there is a destination address lookup failure.

11. (Original) The switch as recited in claim 9 wherein said third indicator means activates a third indicator if the F Bit is set before a destination lookup, there is no destination lookup failure and the address originated from the switch.

12. (Original) The switch as recited in claim 11 further wherein said first indicator means activates a second indicator if there is a source address lookup failure or if the third indicator has been activated.

13. (Original) The switch as recited in claim 9 further comprising an address learner means for learning an address when said first indicator means indicates that a source address needs to be learned.

14. (Original) The switch as recited in claim 9 further comprising an address learner means for learning an address by storing information of an address in an ARL table.

15. (Original) A method of address learning comprising the steps of:

- receiving a packet in a switch;
- performing a destination address lookup;
- setting a first indicator if there is a destination address lookup failure;
- setting a second indicator if the first indicator was set before the destination address lookup, there is no destination lookup failure, and the switch is the originating switch;
- performing a source address lookup;
- setting a third indicator if there is a source address lookup failure or if said second indicator is set; and
- learning an address if said third indicator is set.

16. (Original) The method as recited in claim 15 wherein said first indicator and said third indicator are set in a header.

17. (Original) The method as recited in claim 15 wherein said second indicator is set in an ARL Table.